

ABSTRACT OF THE DISCLOSURE

A point-to-point, wireless, millimeter wave trunk line communications link at high data rates in excess of 1 Gbps and at ranges of several miles during normal weather conditions to connect a local communication network through a SONET aggregation unit to a high speed fiber-optics network. In a preferred embodiment a trunk line communication link operates within the 92 to 95 GHz portion of the millimeter spectrum. A first transceiver transmits at a first bandwidth and receives at a second bandwidth both within the above spectral range. A second transceiver transmits at the second bandwidth and receives at the first bandwidth. The transceivers are equipped with antennas providing beam divergence small enough to ensure efficient spatial and directional partitioning of the data channels so that an almost unlimited number of transceivers will be able to simultaneously use the same spectrum.

10025127-121801